# BOARD OF LAND AND NATURAL RESOURCES

# STATE OF HAWAII

In The Matter of a Contested Case Regarding )
A Petition to Deny Conservation District )
Use Application (CDUA) HA-3250 for the )
Commercial Use of Hand Quarried )
Volcanic Ash Located on State Owned Land at Pu'u Nene, Kaohe, North Hilo, )
Island of Hawaii, TMK: (3) 3-8-001:001

DLNR File HA-06-01

BOARD OF LAND AND NATURAL RESOURCES' FINDINGS OF FACT, CONCLUSIONS OF LAW AND DECISION AND ORDER; CERTIFICATE OF SERVICE

# BOARD OF LAND AND NATURAL RESOURCES' FINDINGS OF FACT, CONCLUSIONS OF LAW AND DECISION AND ORDER

APPLICANT GEOHAZARDS CONSULTANTS INTERNATIONAL, INC. seeks a Conservation District Use Permit to allow the extraction of 125 tons of volcanic ash from Pu'u Nene by hand quarrying, using shovels, in one or two rectangular areas on the northwestern slopes of the pu'u, measuring 1,660 square yards and 1,860 square yards, respectively. Pu'u Nene is located off of Saddle Road between Mauna Kea and Mauna Loa, in the Humu'ula ahupua'a, North Hilo District, Island of Hawai'i, Tax Map Key (3) 3-8-1:1. The parcel is Stateowned and managed by the Department of Land and Natural Resources ("DLNR").

## I. FINDINGS OF FACT

## The Parties

# Applicant Geohazards Consultants International, Inc. ("GCI")

- 1. GCI ("The Applicant") is a field-oriented company specializing in geohazards appraisals, risk reduction, and provision of general expertise in the field of volcanology. The Applicant was founded in 1995 by its President Dr. John P. Lockwood ("Dr. Lockwood"). Applicant's Exhibit 16.
- 2. The Applicant is represented by Roy A. Vitousek III and Jocelyn B. Garovoy of Cades Schutte, LLP. Transcript of Contested Case Hearing held on October 12, 2006 (hereinafter "Tr.") at 5.

## Petitioner Keoni Choy

- 3. Keoni Choy ("Mr. Choy") claims to be an active user of this pu'u and the surrounding areas and claims to gather sandalwood seeds from Pu'u Nene. Applicant's Exhibit 3 at p. 0000108.
- 4. Mr. Choy filed a petition for a contested case hearing on November 7, 2005. Applicant's Exhibit 3 at p. 0000108.
- 5. Mr. Choy was granted standing as a petitioner in this contested case hearing by Order dated August 25, 2006. Applicant's Exhibit 3 at pp. 0000031-0000041.

# Petitioner David Paul

- 6. David Paul ("Mr. Paul") is a member of the Big Island Native Plant Society. Applicant's Exhibit 3 at pp. 0000106-0000107.
- 7. Mr. Paul filed a petition for a contested case hearing on November 17, 2005. Applicant's Exhibit 3 at pp. 0000106-0000107.
- 8. Mr. Paul was granted standing as a petitioner in this contested case hearing by Order dated August 25, 2006. Applicant's Exhibit 3 at pp. 0000031-0000041.

#### Other Petitions

- 9. In addition to Mr. Choy and Mr. Paul, several other individuals petitioned for standing in this contested case hearing. Those other individuals were: Kuhina Ka Lae Aina, Alena Kaiokekoa, Dwight Vicente, and Harry Fergerstrom. Applicant's Exhibit 3 at p. 0000048 and pp. 0000062-0000066.
- 10. By order dated August 25, 2006, the Board of Land and Natural Resources ("BLNR") denied standing in this contested case to Kuhina Ka Lae Aina, Alena Kaiokekoa, Dwight Vicente, and Harry Fergerstrom. Applicant's Exhibit 3 at pp. 0000031-0000041.
- 11. Harry Fergerstrom filed a motion for reconsideration and Exceptions to Supplemental Recommendations of Francis Yamashita (Hearing Officer) dated August 30, 2006. Applicant's Exhibit 3 at pp. 0000013- 0000021.
- 12. Harry Fergerstrom's motion for reconsideration was denied by the BLNR by Order dated September 22, 2006. ORDER DENYING HARRY FERGERSTROM'S MOTION FOR RECONSIDERATION, dated September 22, 2006 and September 25, 2006.

# Description of the Property

13. Pu'u Nene is located adjacent to the Saddle Road current alignment in Humu'ula Saddle between Mauna Kea and Mauna Loa. Applicant's Exhibit 4 at p. 0000195.

- 14. The proposed hand quarrying sites, designated by Applicant as "Area A" and "Area B" and hereinafter referred to as "Area A" and "Area B" individually and as "Areas A & B" collectively, are located on Pu'u Nene which is located at Tax Map Key (3) 3-8-1:1 at approximately 19° 41' 49" N latitude and 155° 29' 49" W longitude ("The Property"). Applicant's Exhibit 4 at p. 0000196.
- 15. The Property and surrounding lands are owned by the State of Hawai'i and are in the State Land Use Conservation District. Applicant's Exhibit 3 at pp. 0000175; Applicant's Exhibit 4 at pp. 0000198 and 0000207.
- 16. The Property is located in the Resource subzone of the Conservation District. Mining is an expressly identified use in the Resource subzone of the Conservation District. Applicant's Exhibit 4 at p. 0000207; Tr. at 6 and 103; Hawai'i Administrative Rules 13-5-24 (R-7).
- 17. The Property does not have a County zoning designation. Applicant's Exhibit 4 at p. 0000207.
- 18. The Property is classified as Conservation in the Hawai'i County General Plan Land Use Pattern Allocation Guide (LUPAG). Applicant's Exhibit 4 at p. 0000207.
- 19. Pu'u Nene has been extensively quarried for cinders that were used, among other things, to pave Saddle Road in the 1940's. Tr. at 15-16.
- 20. Areas A & B are located on the northwest side of The Property, approximately 100 feet from the large cinder quarry in an area dominated by alien grasses and occasioned by non-native grazing ungulate species. Applicant's Exhibit 11.
- 21. Although the Humu'ula saddle area itself has a storied past, there is no known Hawaiian name for Pu'u Nene--rather the area surrounding the pu'u was known generally as the Oma'okoili Hills. There are no known historic or cultural features present at Areas A & B. Applicant's Exhibit 4 at p. 0000228; Tr. at 93.
- 22. Dr. Lockwood, The Applicant's representatives, as well as Mr. Paul, have been to the Property and know the location of Areas A & B. Tr. at 12-16, 54, 73, 117, 141.
- 23. The Southeast facing area of Pu'u Nene, on the opposite side of the pu'u from Areas A & B, is vegetated with a native forest. This native forest will not be impacted by the proposed hand quarrying activity. Tr. at 97-98.

Purpose of the Proposed Project

- 24. In 1996, the National Aeronautics and Space Administration ("NASA") contacted Dr. Lockwood for his assistance in furthering Mars research. NASA asked Dr. Lockwood to obtain small quantities of ash deposit found in the Saddle region of Hawai'i Island for use in testing rover vehicles, food production, and equipment maintenance. Applicant's Exhibit 4 at p. 0000196.
- 25. Dr. Lockwood and GCI chose to obtain the materials from Pu'u Nene because it had been previously disturbed by a relatively large cinder quarry to build Saddle Road, and because there was very little native vegetation at the site. Tr. at 15 and 28.
- 26. The materials obtained by The Applicant in 1997 have been used in Mars research and education projects. Applicant's Exhibit 4 at p. 0000196; Tr. at 62-66; Applicant's Exhibits 12-14.
- 27. By 2005, the supply of the Mars soil simulant had run out and researchers requested that The Applicant obtain permission again to extract additional quantities of ash deposit. Tr. at 67.
- 28. The Applicant has applied for a Conservation District Use Permit for hand quarrying an additional 125 tons of palagonite ash from Pu'u Nene. Applicant's Exhibit 6.

# Description of the Proposed Project

- 29. The Applicant proposes to hand quarry up to 125 tons of volcanic ash, using shovels, within one or two rectangular areas, Area A, 1660 square yards and Area B, 1860 square yards. The Applicant proposes to quarry the volcanic ash from Area A. Area B will be a back up to Area A in case there are any problems in obtaining the permitted amount of volcanic ash from Area A. Applicant's Exhibit 4 at pp. 0000196-0000197.
- 30. The proposed hand quarrying will temporarily remove the soil over the area, extract the palagonite ash 2-3 feet below the soil layer, then replace the soil overburden. Applicant's Exhibit 4 at pp. 0000196-0000197; Tr. at 30-33.
- 31. The palagonite ash which is quarried will be processed by passing it through a series of stainless steel sieves to separate it by granule size into fine-grade and medium-grade ash. Applicant's Exhibit 4 at pp. 0000196-0000197; Tr. at 30-33.
- 32. The Applicant anticipates that the shoveling and sieving operation will require twelve employees and will take up to five years to complete. Applicant's Exhibit 4 at pp. 0000196-0000197; Tr. at 30-33.
- 33. The Applicant's goal is to extract the palagonite ash for sale to ORBITEC, which will distribute the palagonite ash to research and educational projects and facilities. Several

researchers and educators have already made requests for the palagonite ash. Applicant's Exhibit 4 at p. 0000196; Tr. at 70-71.

## The Application Process

- 34. On July 20, 2005, The Applicant filed its Conservation District Use Application ("CDUA") and Draft Environmental Assessment ("Draft EA") for the proposed use. Applicant's Exhibit 6; Applicant's Exhibit 4.
- 35. The Draft EA was circulated to the following agencies, officials, and organizations for review and comment: Office of Environmental Quality Control ("OEQC"); Office of Conservation and Coastal Lands ("OCCL"); U.S. Army, Commander, Pohakuloa Training Area; DLNR Land Division; Hawai'i Island office of Division of Forestry and Wildlife; DLNR Engineering Division; DLNR State Historic Preservation Division; Department of Health, Environmental Planning Office; Office of Hawaiian Affairs; Hawai'ian Homes Commission; Hawai'i County Police Department; Hawai'i County Planning Department; Hilo Public Library; Division of Conservation and Resource Enforcement ("DOCARE"); and the Sierra Club. Applicant's Exhibit 3 at pp. 0000187-188 and Applicant's Exhibit 4.
- 36. DLNR issued a notice of acceptance of the CDUA and Draft EA and a preliminary determination of a Finding of No Significant Impact with respect to the proposed hand-quarrying project by letter dated August 25, 2005. Applicant's Exhibit 3 at pp. 0000175-0000176.
- 37. Notice of the Draft EA was published in the OEQC Environmental Notice on September 8, 2005. Applicant's Exhibit 5.
- 38. A public hearing on the proposed project was held in Hilo at the Hilo State Office Building at 5:00 p.m. on October 25, 2005. Applicant's Exhibit 3 at pp. 0000164, 0000166-0000167.
- 39. Notice of the public hearing was published in the Honolulu Star Bulletin and the Hawai'i Tribune Herald. Applicant's Exhibit 3 at pp. 0000146, 0000163.
- 40. The public comment period for the Draft EA ended on October 8, 2005. Applicant's Exhibit 3 at p. 0000153.
- 41. Timely responses with comments and without comments were received from the following divisions, departments, and officials: Division of Forestry and Wildlife, DOCARE, Office of Hawaiian Affairs, Department of the Army, OEQC, DLNR Engineering Division, DLNR Land Division, Environmental Planning Office. The only negative comments made were by the Office of Hawaiian Affairs which called for an archaeological inventory survey and a cultural impact assessment. The Office of Hawaiian Affairs also stated, "In general, OHA is adverse to the large removal of natural resources in Hawai'i for export outside of the State,

including rock, pohaku and ash, pu'u ahi, associated with Pele." Applicant's Exhibit 4 at pp.0000253-263; David Paul's Exhibit H.

- 42. On October 12, 2005, DLNR accepted and passed on to The Applicant's representatives late comments received from Mr. Paul. Applicant's Exhibit 3 at pp. 0000148-0000152.
- 43. On October 13, 2005, OCCL Planner Kimberly Tiger Mills requested comments to several State agencies who had not submitted any comments prior to the October 8, 2005, deadline. Applicant's Exhibit 3 at p. 0000144.
- 44. On November 2, 2005, DLNR accepted and passed on to The Applicant's representative late comments received from Randall Kennedy of the Division of Forestry and Wildlife. Applicant's Exhibit 3 at p. 0000142.
- 45. The Applicant's consultant, Dr. Ron Terry of Geometrician Associates responded to all comments received, including late comments. Applicant's Exhibit 4 at pp 0000129-139.
- 46. On November 7, 2005, Keoni Choy filed a Petition for a Contested Case Hearing. Applicant's Exhibit 3 at p 0000141.
- 47. On November 17, 2005, David Paul filed a Petition for a Contested Case Hearing. Applicant's Exhibit 3 at pp 0000117-118.
- 48. The Final Environmental Assessment was submitted to the DLNR by Dr. Ron Terry in November 24, 2006. FINAL ENVIRONMENTAL ASSESSMENT DLNR file stamped November 24, 2006.
- 49. DLNR issued a Finding of No Significant Impact (FONSI) dated November 27, 2006.

## Contested Case Hearing on October 12, 2006

- 50. The contested case was set for hearing before the Hearing Officer, Francis I. Yamashita on October 12, 2006. Minute Order No. 5, dated September 11, 2006.
- 51. The contested case hearing took place at the Hilo State Office Building and was attended by Deputy Attorney General Julie China, Esq., Roy A. Vitousek III, Esq., Jocelyn B. Garovoy Esq., Dr. Jack Lockwood, Marty Gustafson, Dr. Ron Terry, Dr. Patrick Hart, David Paul, Keoni Choy, and several unidentified members of the public. Tr. At 1-3.
- 52. Petitioner Choy refused to come forward to participate fully in the Contested Case Hearing. He objected to all evidence presented by The Applicant. Tr. at. 23, 25, 37, 40, 43, 45, 66, 68, 70, 79, 106, 108.

- 53. Over the objection of Mr. Choy, Applicant's Exhibits 1 through 16 were admitted into evidence with the exception of the second page of Applicant's Exhibit 2. Tr. at 112.
- 54. The Applicant objected to Petitioner David Paul's Exhibit C as being irrelevant, Exhibits E, F, and G, as being without foundation, without relevance and without specific nexus to the project area, and Exhibits I and J as without foundation. Tr. at 120.
- 55. Petitioner Choy objected to all of Petitioner Paul's Exhibits. Tr. at 121.
- 56. The Hearing Officer admitted Petitioner's Exhibits A, B, D, G, H, and I into evidence. Tr. at 125, 132, 133,
- 57. The Hearing Officer did not admit Mr. Paul's Exhibit E, E1 or F into evidence for lack of authenticity. Tr. at 130, 146-147.
- 58. The entire DLNR file on this CDUA was admitted as a part of the record. Tr. at 77.
- 59. Upon the completion of the testimony of Mr. Paul, the Hearing Officer called a brief recess of the Contested Case Hearing. At the recess, the Hearing Officer informed Mr. Choy that his opportunity to present his evidence would occur upon the return from the recess. Upon reconvening, the Hearing Officer discovered that Mr. Choy had absented himself from the proceedings. The Hearing Officer prevailed upon the other parties to the proceeding to search the surrounding area to ascertain that Mr. Choy was not present. The parties reported that Mr. Choy was not present in the building. Mr. Choy voluntarily absented himself from the proceeding, presented no documentary or testimonial evidence and made no written or oral arguments. Tr. at 161.
- 60. On October 17, 2006, the Hearing Officer issued Minute Order Number 6 which set Monday, November 20, 2006 as the deadline for each party of submit a Final Argument or a proposed Findings of Fact, Conclusions of Law, and Recommendations, or both. The Minute Order stated that the parties were not required to submit such documents.
- 61. The Hearing Officer issued his Findings of Fact, Conclusions of Law and Recommendation on February 6, 2007. No exceptions have been filed.

## **Factual Findings**

# John P. ("Jack") Lockwood, Geohazards Consultants International, Inc.

- 62. Dr. Lockwood testified at the Contested Case Hearing. Tr. at 11-59.
- 63. Dr. Lockwood is the principal for The Applicant. Applicant's Exhibit 16 at p. 2.
- 64. Dr. Lockwood is a trained geologist with a Bachelor's in Science in geology from the University of California and a PhD in geology from Princeton University. He came to Hawai'i in 1971 and worked for 25 years for USGS at the Hawaiian Volcano Observatory assessing geologic hazards in Hawai'i and all over the world. Since 1995, he has been employed as an independent consultant also assessing geological hazards. Tr. at 11-12.
- 65. Dr. Lockwood is an adjunct professor at the University of Hawai'i where he teaches volcanology. Dr. Lockwood travels throughout the world to regions with active volcanoes to assess and help communities mitigate against the hazards associated with eruptive activity. Applicant's Exhibit 16.
- 66. Dr. Lockwood was contacted by NASA in 1996 to evaluate the possibility of producing material that could be used as an analog for the surface material on Mars. In 1997 he was contracted by NASA to produce 30,000 pounds of the refined Martian regolith simulant from Pu'u Nene. Tr. at 12.
- 67. Dr. Lockwood explained that NASA had studied images produced by earth-orbiting satellites and compared them with Mars-orbiting satellites and determined that the surface and area around Mauna Kea is covered with material that looks very similar to Mars. Tr. at 13.
- 68. Because Mauna Kea itself was off limits for any kind of mining, NASA researchers had also looked under the soil deposits on pu'u in the Saddle area and found material similar to what the satellites had captured visually on Mauna Kea at Pu'u Nene. Tr. at 13.
- 69. To confirm NASA's findings and to determine if similar material could be found closer to shipping facilities, Dr. Lockwood sampled material from Pu'u in Hamakua, Pahala, and other locations and found that Pu'u Nene contained the most appropriate material. Tr. at 14.
- 70. Dr. Lockwood collected the samples of the fine grade and medium grade sieved palagonite with permission from DOFAW. Tr. at 35; Applicant's Exhibits 7 and 8.
- 71. Dr. Lockwood also collected a sample of more common, yellowish-colored ash in the Humu'ula Saddle region that is not like the surface of Mars and is not equivalent to the material available at Pu'u Nene. Applicant's Exhibit 9; Tr. at 35-36.

- 72. One of the reasons Dr. Lockwood chose Pu'u Nene as a site to gather the palagonite material was because the pu'u had already been impacted by previous larger-scale quarrying. Tr. at 15-16, 28.
- 73. Dr. Lockwood took and prepared several photographs which document the proposed location of the hand quarrying on one particular cinder cone. Applicant's Exhibit 10; Tr. at 24.
- 74. Applicant's Exhibit 5 shows the area of Pu'u Nene that was previously hand quarried for NASA in 1997. The area was approximately 22 feet wide and 60 feet long. Tr. at 26; Applicant's Exhibit 5.
- 75. In the current proposed hand-quarrying operation, Dr. Lockwood has identified two potential areas to excavate, Area A and Area B. Area B is a reserve area identified in case Area A does not contain a sufficient quantity of the sought ash. Tr. at 27.
- 76. Dr. Lockwood plans to leave a minimum 20-foot buffer zone around each of the two native trees in Area A to avoid doing any harm to the two individual trees. Tr. at 27.
- 77. Dr. Lockwood explained the proposed process for hand quarrying the palagonite ash at Pu'u Nene. First, the overlying soil burden 12 to 15 inches deep will be removed with shovels, using manual labor of about 12 people. He explained that the underlying palagonite comprises about 10 or 15 percent of the palagonite ash layer and will be moved down the pu'u by gravity-feed sluices, with people pushing it down to sieves. The sieves are large and some have mechanical vibrators on them. The sieves exclude coarse fragments. The fine material will then be dried on site and taken to be packed and further purified in Hilo or Kawaihae, inspected by USDA, and shipped to the client on the mainland. Tr. at 31-32.
- 78. The sieving process creates no dust, as the material is moist when it is quarried and sieved, and the sieving work is usually done under a tent. Tr. at 58.
- 79. The only tools that are proposed on the pu'u other than the funnel are shovels. No motorized equipment will be used on the pu'u. Tr. at 32.
- 80. In the proposed hand-quarrying process, the soil overburden will be removed a little at a time, the palagonite ash will be removed, and the top soil will then be replaced in its previous location to allow vegetation to regrow. Tr. at 32 -33.
- 81. Topsoil removed prior to the hand-quarrying of the palagonite ash is to be replaced in the same manner it is removed, by using shovels. Tr. at 56-57.
- 82. The proposed quarry sites are on the opposite side of the pu'u from the forested area and are much smaller than the preexisting quarry that was mechanically mined in the 1940's and 1950's. Applicant's Exhibit 11.

- 83. The prevailing winds on the Humu'ula Saddle make it virtually impossible for any dust to blow from the proposed hand quarry sites onto the forested side of the pu'u. Applicant's Exhibit 11.
- 84. Dr. Lockwood has been involved in conservation issues in Hawai'i for over 30 years including as a litigant to protect native forest in Puna and as a member of the Sierra Club. He testified that he cares deeply for the land and will take that care into consideration if this permit is approved and he is able to carry out the hand-quarrying operation. Tr. at 46-47.
- 85. For the 1997 quarrying operation, approval was granted by the Department of Hawaiian Homelands (DHHL). DHHL did not request any environmental impact studies. Tr. at 48.
- 86. The workers in 1997 at Pu'u Nene had a rent-a-lua and facilities designated for cooking and for rubbish and were extremely careful to keep the area pristine. Tr. at 49-50.
- 87. The location of Areas A & B was proposed so as to provide for easy access to the existing road and to keep the hand quarry sites farther away from the native forest on the other side of the pu'u. Tr. at 50-51.
- 88. When Dr. Lockwood went back to DHHL to obtain a permit for the hand quarrying in 2005, he was told to talk to DLNR. Harry Yada at DLNR told Dr. Lockwood that Pu'u Nene was in DLNR's jurisdiction. Tr. at 53.
- 89. After he learned that the land was controlled by DLNR and not DHHL, Dr. Lockwood requested and received an entry permit from Mr. Imoto of DOFAW to obtain samples of the palagonite ash. Tr. at 54.

# Marty Gustafson, ORBITEC

- 90. Marty Gustafson testified at the Contested Case Hearing. Tr. at 59-77.
- 91. Marty Gustafson ("Ms. Gustafson") is the Commercial Applications Manager at PLANET, LLC, Deputy Project Manager of Phase I and Phase II at Orbital Technology Corporation, or "ORBITEC." Ms. Gustofson's responsibilities include research and project management. Tr. at 61.
- 92. ORBITEC is a research and development company that specializes in technologies that facilitate exploration of the moon, Mars, and beyond. Tr. at 60.
- 93. Marty Gustafson has a Bachelors of Science in engineering mechanics from the University of Wisconsin and a Masters of Science in Engineering Management from the Milwaukee School of Engineering. Tr. at 60.

- 94. ORBITEC is under a small business research grant from NASA to investigate the feasibility of making Martian regolith simulants. Tr. at 61.
- 95. ORIBITEC requested the palagonite tephra Mars simulant ash from NASA in 2004 for use in an educational plant growth project. Applicant's Exhibit 4 at p. 0000196.
- 96. NASA told Ms. Gustofson that Phase I supply of the palagonite ash/simulant was no longer available and that she should contact Dr. Lockwood directly to obtain more. Applicant's Exhibit 4 at p. 0000196.
- 97. ORBITEC submitted a proposal to NASA to study the feasibility of obtaining more of the palagonite ash/simulant. Applicant's Exhibit 4 at p. 0000196.
- 98. The grant was awarded and, in 2005, ORBITEC surveyed the research and education community users of the palagonite ash to assess interest in having more available. Applicant's Exhibit 4 at p. 0000196; Applicant's Exhibit 14; Tr. at 67-68.
- 99. The study determined that there is a need for and interest in additional production and distribution of the Mars simulant product. Applicant's Exhibit 14 at pp.1, 43.
- 100. There are two main user groups for the simulant: about 50% of the 1997 material went to the NASA research community for rover studies and to determine if the palagonite ash could support plant growth. The other 50% went to educational users such as science catalogs and teachers and museums. Tr. at 62-63.
- 101. Educational projects using the simulant include Wards Scientific Catalog for Education, the Mars Millenium Project, and "Spuds in Space," a project for Native American students sponsored by NASA. Applicant's Exhibits 12-15.
- 102. Ms. Gustofson prepared a list of all of the scientific and technical papers written using the 1997 Martian simulant from Pu'u Nene. There are 61 scientific papers on the list. Tr. at 64-65; Applicant's Exhibit 12.
- 103. Ms. Gustofson prepared the final report from ORBITEC's Phase I feasibility study to determine the likelihood of obtaining more of the Martian regolith simulant. In preparing this report, she surveyed the user community to determine how much of the simulant they would use in their experiments. Tr. at 67-68.
- 104. There are some very strong correlations between the JSC-1 Martian simulant ash collected from Pu'u Nene in 1997 and the actual surface of Mars. Tr. at 69; Applicant's Exhibit 15.

- 105. There is a need for the Martian simulant to support work going on now to prepare technologies for both robots and humans to travel to Mars. Tr. at 70.
- 106. Ms. Gustofson receives one or two requests per week from school teachers looking to order the Martian regolith simulant material. She stated that, at present, she has requests for 1200 to 1600 pounds of the material for educational purposes alone. Tr. at 71.
- 107. Ms. Gustofson serves as the chair of the Wisconsin chapter of the American Institute for Aeronautics and Astronautics, which provides grants to the vast majority of teachers who wish to purchase the simulant material for their classrooms. Tr. at 72.
- 108. Ms. Gustofson has visited Pu'u Nene and understands the concerns about how the hand-quarrying activity will be conducted. Tr. at 73.
- 109. Ms. Gustofson is a member of the Sierra Club and the Nature Conservancy. Tr. at 73.
- 110. Ms. Gustofson states that she will follow any conditions imposed on the hand quarrying activity to maintain the integrity of the natural resources in the Conservation District. Tr. at 73.

## Dr. Ron Terry

- 111. Ron Terry testified at the Contested Case Hearing. Tr. at 79-118.
- 112. Dr. Ron Terry ("Dr. Terry") is the Principal of Geometrician Associates, LLC. Tr. at 80.
- 113. Dr. Terry prepared the Draft Environmental Assessment and Conservation District Use Permit Application for The Applicant. Tr. at 87 and at 100-101.
- 114. Dr. Terry received a Bachelor's of Science in geography from the University of Hawai'i at Hilo, and a PhD in geography from Louisiana State University. Dr. Terry worked as a professor of geography at the University of Hawai'i, Hilo for five years and has been working as an environmental consultant specializing in environmental assessments and impact statements since then. Tr. at 80.
- 115. As a consultant, Dr. Terry prepares environmental assessments (EA) and environmental impact statements (EIS) in accordance with H.R.S. Chapter 343 and the National Environmental Policy Act. He assesses the existing environment and potential impacts of proposed activities on important resources. Tr. at 80-81.
- 116. Dr. Terry often works with a team of specialists when preparing his assessments. Tr. at 81.

- 117. Dr. Terry estimates that he has completed approximately 100 EA and EIS reports in the past ten years for clients including the Federal Highway Administration, the U.S. Fish and Wildlife Service, the Department of Land and Natural Resources, the State Parks Division, and the County of Hawai'i's Department of Public Works, Planning Department, and Department of Environmental Management as well as many private clients. Tr. at 81-82.
- 118. For The Applicant's CDUA and EA applications, Dr. Terry prepared early preconsultation letters for the Draft EA which may have erroneously described the TMK parcel number as parcel 17. Tr. at 84-85.
- 119. The Hawai'i County Planning Department contacted Dr. Terry and informed him that they thought the correct parcel number was parcel 1. Dr. Terry changed all subsequent correspondence and documentation for The Applicant's application to reflect the parcel number as parcel 1. Tr. at 85.
- 120. Dr. Terry determined that all the surrounding lands around parcel 1 are owned by the State of Hawai'i, under the management of either DLNR or DHHL. Tr. at 86-87.
- 121. Dr. Terry submitted the Draft EA to the OEQC which published notice of its availability to the public. Tr. at 88, Applicant's Exhibit 5.
- 122. Dr. Terry received some comments in response to the Draft EA and responded to them. Dr. Terry finalized his responses to those comments in the Final EA and the appendices thereto. Tr. at 88.
- 123. Dr. Terry explained the process by which CDUA and EA documents are reviewed and decided by the BLNR: He explained that after comments are submitted to DLNR about the Draft EA, DLNR normally requests that the applicant address particular issues and asks the applicant to submit a Final EA sometime before the BLNR is to decide on the CDUA and EA. Tr. at 89.
- 124. Dr. Terry testified that DLNR had not yet asked for him to submit the Final EA for The Applicant. Tr. at 89.
- 125. After the Final EA is submitted, DLNR normally issues a finding with respect to the impact of the proposed use. Tr. at 89.
- 126. If DLNR makes a Finding of No Significant Impact (FONSI), there is an opportunity for the public to contest the FONSI during a 30-day challenge period that succeeds publication of the Notice of Availability of the Final EA and FONSI determination. Tr. at 90.
- 127. Dr. Terry conducted an assessment of the potential adverse environmental effects of the proposed hand-quarrying action by conducting a site visit with an archaeologist, Dr. Robert

Rechtman ("Dr. Rechtman"), a cultural specialist, Kepa Maly, and a botanist/ornithologist, Dr. Patrick Hart ("Dr. Hart"). Tr. at 92-94

- 128. Dr. Rechtman's evaluation did not identify any archaeological or traditional customary resources at Pu'u Nene. Tr. at 93; Applicant's Exhibit 4.
- 129. Kepa Maly's cultural impact assessment did not identify any cultural or historical resources utilized by native Hawaiians for traditional purposes. Tr. at 93; Applicant's Exhibit 4.
- 130. Dr. Hart and Dr. Terry visited the site two times and determined that it is dominated by non-native species with the exception of two native trees that Dr. Terry and Dr. Lockwood decided to exclude from the proposed quarrying areas. Tr. at 94-95.
- 131. Dr. Hart and Dr. Terry assessed the site as habitat for native bird and animal species and determined that it does not offer good habitat for native birds or animals because of the lack of native forest on the site itself. Tr. at 96 and 163-164.
- 132. Dr. Terry observed the presence of a native forest on the opposite side of the pu'u from the proposed quarry sites. He did not walk through the forested area so as not to disturb it but observed mamane, pilo, and other species that appear to be good habitat for native plants and animals. Tr. at 97.
- 133. Dr. Terry concluded that the two sides of Pu'u Nene are quite different, with the proposed quarry area dominated by non-native grasses and herbs and the opposite side dominated by native forest. Tr. at 97.
- 134. Dr. Terry evaluated the extent to which the proposed hand quarrying activity on the northwest side of the pu'u could impact the habitat on the southeast side of the pu'u and concluded that it would have "very, very little impact...virtually zero impact." Tr. at 98, Applicant's Exhibit 4.
- 135. Dr. Terry determined that any erosion risk would be posed by the much larger quarry from the 1950's, not by The Applicant's work. Tr. at 99.
- 136. Dr. Terry and Dr. Hart prepared and included a species list in their EA. This is an uncommon practice among other consultants who prepare EA's and provides additional information to the reviewing agencies. Tr. at 99.
- 137. Dr. Terry stated that it is possible and in fact normal to miss a few species in a botanical survey because certain plants are cryptic or only emerge at specific times of the year. The botanical survey is intended as a snapshot with 98 percent accuracy, not 100 percent. Tr. at 100.

- 138. Dr. Terry also assessed The Applicant's proposed use in relation to the criteria for CDUA's and found that the proposed use would be consistent with the purpose of the Conservation District and consistent with the objectives of the Resource subzone, that it was consistent with Chapter 205A, that it would not cause substantial adverse impact to existing natural resources, that the use would be compatible with surrounding uses, that there was no subdivision of land proposed, and that the project would not be materially detrimental to public health, safety or welfare. Tr. at 102.
- 139. In his preconsultation letters, Dr. Terry sent a USGS map identifying the exact location of Pu'u Nene. Tr. at 112.
- 140. Dr. Terry stated that it would not surprise him to see amakihi or nene or other birds flying over The Property. Tr. at 114-115.
- 141. Dr. Terry prepared a portion of the EIS for the new Saddle Road alignment. Tr. at 115.
- 142. The Areas A & B will not be visible from the new Saddle Road. Tr. at 115.

## David Paul

- 143. David Paul testified at the Contested Case Hearing. Tr. at 121-161.
- 144. Mr. Paul described himself as a "floristic specialist," a subspecialty of botany. Tr. at 143.
- 145. Mr. Paul has no formal training in botany but rather is self-taught. He received a Bachelor of Arts in anthropology from the University of Hawai'i at Hilo in 1994. Tr. at 144, 153
- 146. Mr. Paul testified that he assisted in running the botany labs at the University of Hawai'i and has substituted for lecturers in enthnobotany. Tr. at 144.
- 147. Mr. Paul testified that he believes the proposed work at the hand-quarrying sites will generate a dust cloud that will impact the rare forest habitat next to the site. Mr. Paul did not testify to any evidence which would support his belief about dust. Tr. at 125.
- 148. Mr. Paul testified that the 10,000-acre area in the Humu'ula Saddle from 6,500 feet to 9,900 feet contains habitat for endangered Hawaiian bird species. Tr. at 126-127.
- 149. Mr. Paul testified that he surveyed The Property and was able to identify the area by the orange survey flags in the ground. Tr. at 141-142.

- 150. Mr. Paul testified that he sat under the Mamane tree located in Areas A & B and watched birds. Tr. at 142; David Paul's Exhibit J.
- 151. Mr. Paul testified that his species list was incomplete but that it showed additional species other than what Dr. Terry and Dr. Hart found. Tr. at 142; David Paul's Exhibit I.
- 152. Mr. Paul testified that he works as a botanical consultant employed by private companies or other consultants to do botanical surveys which become part of a permit application. Tr. at 155-156.
- 153. Mr. Paul testified that he performs botanical surveys and is in the same business as Dr. Terry. Tr. at 156.
- 154. Mr. Paul was not hired by The Applicant to do a botanical survey for this CDUA. Tr. at 156.
- 155. Mr. Paul testified that he was criticizing Dr. Terry's conclusion that Pu'u Nene was poor habitat. Tr. at 156.
- 156. Mr. Paul testified that the portions of his submittal where he referred to the palagonite ash as "soil" were in error and that he understood that the palagonite ash was not soil. Tr. at 156-157.
- 157. Mr. Paul testified that if the soil was replaced after the hand-quarrying activity that seeds from the area and in the soil bank could regrow. Tr. at 159
- 158. Mr. Paul did not obtain any right of entry permit any of the three times he visited Pu'u Nene. Tr. at 159.
- 159. Mr. Paul has not seen any endangered plants on Areas A & B any of the three times he has visited the site. Tr. at 159; David Paul's Exhibit I.

#### Dr. Patrick Hart

- 160. Patrick Hart testified at the Contested Case Hearing. Tr. at 162-168.
- 161. Dr. Patrick Hart ("Dr. Hart") has a Bachelor's of Science in Biology from the University of California, Santa Barbara and a PhD in ecology, evolution, and conservation biology from the University of Hawai'i at Manoa. Tr. at 162.
- 162. Dr. Hart's PhD studies were focused on conservation of Hawaiian forest birds at Hakalau Forest National Wildlife Refuge, particularly the Hawai'i akepa, the Hawai'i creeper, and the 'Akiapola'au. Tr. at 162.

- 163. Dr. Hart is employed as a professor of biology at the University of Hawai'i at Hilo, where he researches Hawaiian forest dynamics in dry and wet forests around the Island. He is involved in ten ongoing studies on Native Hawai'ian birds and bird conservation. Tr. at 163.
- 164. Dr Hart was hired by Dr. Terry to assist with the flora and fauna study for The Applicant's CDUA. Tr. at 163.
- 165. Dr. Hart testified that he and Dr. Terry conducted two site visits and walked transects every fifteen feet and listed every plant species they came across. When Dr. Hart could not identify the species he enlisted help from Dr. Rick Warshauer and Kealii Bio. Dr. Hart also listened for birds during the entire duration of both site visits. Tr. at 163.
- 166. Dr. Hart concluded that there is no habitat for native bird species nor any ability for the proposed work sites to support Native Hawai'ian bird species. Tr. at 164.
- 167. Dr. Hart testified that he would expect to find not akepa, creeper, or `Akiapola`au within a few mile radius of Pu`u Nene. Creeper needs older growth ohia trees because they forage exclusively on ohia trees. Tr. at 164.
- 168. Dr. Hart testified that it can be very difficult to distinguish between creeper and amakihi for an untrained observer and that this is one of the biggest difficulties for birders in Hawai'i, because of the similar size and color. Tr. at 164-165.
- 169. Dr. Hart testified that it would not surprise him for Mr. Paul to see an amakihi in Areas A & B but that all of the maps of the known distributions of creepers do not include Pu'u Nene.
- 170. Dr. Hart testified that he did not observe any endangered plant species in Areas A & B. Tr. at 166.
- 171. Dr. Hart testified that for a small area of 20 by 300 feet, the proposed hand-quarry site, he felt that the two visits over five hours he and Dr. Terry spent at Pu'u Nene observing plants and birds was enough to evaluate the species in the area with 95 percent certainty. Tr. at 167-168.

#### Standards of Review

DLNR is authorized by Chapter 183C, Hawai'i Revised Statutes to adopt rules in compliance with H.R.S. Chapter 91 which have the force and effect of law.

DLNR is further authorized by H.R.S. §183C to establish and enforce land use regulations on Conservation District lands including setting forth terms and conditions on permits issued by DLNR.

HAR 13-5 The Administrative Rules relating to Conservation District use permits provide:

# §13-5-1 Purpose provides:

The purpose of this chapter is to regulate land use in the Conservation District for the purpose of conserving, protecting, and preserving the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare.

# §13-5-13, Resource subzone, provides:

- (a) The objective of this subzone is to develop, with proper management, areas to ensure the sustained use of the natural resources of those areas:
  - §13-5-24, <u>Identified uses in the resource subzone</u>, provides:
- R-7 Mining and Extraction: Mining and Extraction of any material or natural resource.
- §13-5-30, <u>Permits, generally</u> sets forth the criteria for granting a Conservation District use permit:
- (1) The proposed land use is consistent with the purpose of the Conservation District;
- (2) The proposed land use is consistent with the objectives of the subzone of land on which the use will occur;
- (3) The proposed land use complies with provisions and guidelines in Chapter 205A, H.R.S., entitled "coastal zone management", where applicable;
- (4) The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community, or region;
- (5) The proposed land use, including buildings structures, and facilities shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels;
- (6) The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable;
- (7) Subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District; and
- (8) The proposed use will not be materially detrimental to the public health, safety and welfare.

#### II. CONCLUSIONS OF LAW

- 1. Keoni Choy and David Paul alleged sufficient information in their petitions to intervene to be granted standing to intervene in the proceedings for this Conservation District Use Application.
- 2. Keoni Choy did not present any evidence, documentary or testimonial, at the Contested Case Hearing. Keoni Choy therefore failed to present any evidence tending to prove the property interest which he alleged in his petition to intervene. Mr. Choy's only participation in the Contested Case Hearing was to object to every item of documentary evidence offer by the other parties and ask three questions upon cross examination.
- 3. Kuhina Ka Lae Aina, Alena Kaiokekoa, Dwight Vicente, and Harry Fergerstrom did not have standing to intervene in this contested case hearing. Their petitions to intervene were untimely, failed to allege any specific property interest held by the petitioners distinct from the general public, and were duplicative of the concerns raised by Mr. Choy and Mr. Paul.
- 4. The Conservation District Use Application and Environmental Assessment are required for the use of Conservation District lands under H.R.S. §183C and the use of State-owned lands under H.R.S. §343.
- 5. The Board of Land and Natural Resources has jurisdiction to approve or deny this Conservation District Use Permit Application under Hawai'i Administrative Rules §13-5 and H.R.S. §183-C.
- 6. HAR §13-5 defines the criteria for granting a Conservation District use permit. The Board of Land and Natural Resources may approve a use permit upon finding that:
  - (1) The proposed land use is consistent with the purpose of the Conservation District;
  - (2) The proposed land use is consistent with the objectives of the subzone of land on which the use will occur;
  - (3) The proposed land use complies with provisions and guidelines in Chapter 205A, H.R.S., entitled "coastal zone management," where applicable;
  - (4) The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community, or region;
  - (5) The proposed land use, including buildings structures, and facilities shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels:

- (6) The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable;
- (7) Subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District; and
- (8) The proposed use will not be materially detrimental to the public health, safety and welfare.
- 7. Pursuant to H.R.S. §183C, the Board of Land and Natural Resources or the Department of Land and Natural Resources may require that the applicant meet specified conditions on a Conservation District Use Permit to mitigate potential adverse impacts.
- 8. In accordance with Hawai'i law, Conservation District Use Permit holders must follow certain procedures if they encounter any unanticipated archaeological or cultural resources in the work area. The Applicant has adequately assessed potential archaeological and cultural impacts, and has stated that it will stop work and notify the Historic Preservation Division if any archaeological or cultural artifacts or remains are encountered during the hand-quarrying operations.
- 9. The Applicant has adequately assessed the potential impacts on native Hawaiian flora and fauna. Dr. Terry and Dr. Hart have surveyed the site twice and found no endangered species nor any evidence that the site provides habitat for rare, threatened or endangered species. David Paul similarly found no endangered plant species. In the unlikely event that endangered species are encountered, Applicant has agreed to stop work and take appropriate measures to avoid causing harm to any endangered species.
- 10. The use proposed by The Applicant is consistent with the purpose of the Conservation District. The purpose of the Conservation District is to preserve important natural resources through appropriate use and management. Applicant has selected a location that is already impacted and, has agreed to use only shovels and to replace all topsoil upon completion of hand quarrying. The Applicant has assessed the surrounding environment and concluded that the proposed hand quarrying will not impact the native forest on the opposite side of Pu'u Nene. The proposed methods of extracting the palagonite ash and planned remediation of the site are in keeping with the purpose and goals of the Conservation District.
- 11. The proposed hand-quarrying project is consistent with the objectives of the Resource subzone. The Resource subzone is one of the less restrictive of the five subzones in the Conservation District. The purpose of the resource subzone is to develop and manage sustained use of the natural resources in the area. Mining is an identified use in this subzone. The Applicant's proposed hand-quarrying project is consistent with encouraging sustained use of the resource in this area.

- 12. The proposed use is not located in the Special Management Area of Hawai'i County nor is it otherwise subject to the regulations associated with the Coastal Zone Management process. Pu'u Nene is located on the Humu'ula Saddle and is not located in or near the coastal zone.
- 13. Due to its limited scope, the proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community, or region. The Applicant has identified specific areas on Pu'u Nene for hand quarrying, and has excluded and buffered the area around the two native trees that occur in that area. The proposed use will not have a substantial impact to already impacted Pu'u Nene nor to the vast ten thousand acre region that comprises the Humu'ula Saddle.
- 14. The proposed land use is compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels. There are no buildings proposed in conjunction with the proposed use. The Applicant has located and chosen a site adjacent to a major quarry, which also already has a road to access the proposed work sites. The location is appropriate and selected to reduce impacts on nearby Pu'u that have not been previously mined. The use is compatible with the immediate surroundings and well-planned for the conditions of this specific portion of this parcel.
- 15. The project area will have topsoil replaced and will be allowed to revegetate such that the existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved. The Humu'ula Saddle is a large, open, and varied landscape which this small-scale, temporary hand-quarrying operation is unlikely to disturb.
- 16. No subdivision of land is contemplated as part of the proposed use.
- 17. The hand-quarrying operation will be managed to provide for appropriate sanitation facilities and to contain the sieving operations as has been demonstrated by The Applicant's previous work at Pu'u Nene in 1997. The project will provide jobs for several people and the area will be remediated upon completion of the quarrying. The project is limited in scope and therefore poses no major threat to public health safety or welfare.
- 18. If it is determined that any of the Findings of Fact should have been set forth as Conclusions of Law, or the converse, they shall be deemed as such. All remaining proposed Findings of Fact, Conclusions of Law, and /or Exceptions thereto submitted by all parties which have not heretofore been adopted are specifically rejected and not made a part of this Decision and Order.

## III. RULINGS ON PROPOSED FINDINGS OF FACT

Mr. Choy did not file any post hearing documents. On November 16, 2006, Mr. Paul filed a Final Statement. Mr. Paul elected not to submit a proposed Findings of Fact, Conclusions of Law, and Recommendations. Applicant filed a proposed Findings of Fact, Conclusions of Law, and Recommendations containing 172 proposed Findings of Fact. Pursuant to HAR 13-1-40(e), the BLNR makes the following rulings on the 172 proposed Findings of Fact submitted by Applicant:

Applicant's Proposed Finding of Fact 30 is denied as redundant of other Findings of Fact which will be granted.

Applicant's Proposed Finding of Fact 42 is denied as redundant of other Findings of Fact which will be granted.

Applicant's Proposed Finding of Fact 99 is denied as redundant of other Findings of Fact which will be granted.

Applicant's Proposed Finding of Fact 146 is denied, the underlying documents cited in support of the proposed finding were denied admission into evidence at the Contested Case Hearing.

Applicant's Proposed Finding of Fact 147 is denied, the underlying documents cited in support of the proposed finding were denied admission into evidence at the Contested Case Hearing.

Applicant's Proposed Finding of Fact 148 is denied as unsupported by admissible evidence.

Applicant's Proposed Finding of Fact 149 is denied as unsupported by admissible evidence.

Applicant's Proposed Finding of Fact 150 is denied as unsupported by admissible evidence.

The remaining 164 Findings of Fact proposed by Applicant are granted and incorporated into the Findings of Fact hereinabove with modifications.

# IV. DECISION AND ORDER

Pursuant to the hearing on the October 12, 2006 and the resultant Findings of Fact and Conclusions of Law hereinabove, the Board of Land and Natural Resources approves the Applicant's Conservation District Use Application for the Hand Quarrying of 125 Tons of Volcanic Ash Located on State land, Pu'u Nene, Humu'ula, North Hilo, Island of Hawaii,

TMK: (3) 3-8-001:001, and a Conservation District Use Permit is issued subject to the following conditions:

- 1. The Applicant shall comply with all applicable statutes, ordinances, rules, and regulations of the federal, state, and county governments, and applicable parts of this chapter;
- 2. The Applicant, its successors and assigns, shall indemnify and hold the State of Hawai'i harmless from and against any loss, liability, claim, or demand for property damage, personal injury, and death arising out of any act or omission of The Applicant, its successors, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit;
- 3. The Applicant shall obtain appropriate authorization from Department of Land and Natural Resources for the occupancy of state lands;
- 4. The Applicant shall comply with all applicable Department of Health administrative rules;
- 5. Any work to be done on the land shall be initiated within one year of this approval, and shall be completed within six (6) years of this approval. The Applicant shall notify Department of Land and Natural Resources in writing when work is initiated and when it is completed;
- 6. All representations relative to mitigation set forth in the accepted environmental assessment or impact statement for the proposed use are incorporated as conditions of this permit;
- 7. The Applicant understands and agrees that the permit does not convey any vested right(s) or exclusive privilege;
- 8. In issuing the permit, Department of Land and Natural Resources and the Board of Land and Natural Resources have relied on the information and data which The Applicant has provided in connection with the permit application. If, subsequent to the issuance of the permit such information and data prove to be false, incomplete, or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and Department of Land and Natural Resources may, in addition, institute appropriate legal proceedings;
- 9. Where any interference, nuisance, or harm may be caused, or hazard established by the use, The Applicant shall be required to take measures to minimize or eliminate the interference, nuisance, harm, or hazard;
- 10. Obstruction of public roads, trails, and pathways shall be minimized. If obstruction is unavoidable, The Applicant shall provide roads, trails, or pathways acceptable to Department of Land and Natural Resources;

- During the quarrying operation, appropriate mitigation measures shall be implemented to minimize impacts to off-site roadways, utilities, and public facilities;
- 12. Cleared areas shall be revegetated within thirty days after quarrying operations are completed unless otherwise provided for in a plan on file with and approved by Department of Land and Natural Resources;
- 13. Deviation from any of the conditions provided herein may be considered by the Board of Land and Natural Resources, only when supported by a satisfactory written justification;
- 14. Failure to secure the approval of the Board of Land and Natural Resources for a deviation before such a deviation occurs constitutes cause for permit revocation;
- 15. All time extensions shall be submitted to Department of Land and Natural Resources thirty days before the expiration deadline. If a request is received less than thirty days before the due date, the request for time extension shall be forwarded to the Board of Land and Natural Resources for review;
- 16. All representations set forth in the <u>Martian Regolith Simulant Project MANAGEMENT</u>
  PLAN SUMMARY for the proposed use are incorporated as conditions of this permit;
- 17. The Applicant acknowledges that the approved work shall not hamper, impede or otherwise limit the exercise of traditional, customary or religious practices in the immediate area, to the extent such practices are provided for by the Constitution of the State of Hawaii, and by Hawaii statutory and case law;
- 18. Should historic remains such as artifacts, burials or concentration of charcoal be encountered during construction activities, work shall cease immediately in the vicinity of the find, and the find shall be protected from further damage. The Applicant shall immediately contact SHPD (692-8015), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary;
- 19. Other terms and conditions as may be prescribed by the Chairperson; and
- 20. Failure to comply with any of these conditions shall render this Conservation District Use Permit null and void.

(The foregoing findings of fact, conclusions of law, and decision and order may be signed in the counterparts.)

# IT IS SO ORDERED.

DATED: Honolulu, Hawaii,	, 2007.
	BOARD OF LAND AND NATURAL RESOURCES
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	Peter T. Young, Chairperson
	Ron Agor, Kauai Member
	Ron Agor, Rauai Member
	•
	Jerry Edlao, Maui Member
-	Timothy Johns, Member at Large
	Robert Pacheco, Hawaii Member
	Taryn R. Schuman, Oahu Member
	Samuel M. Gon, Member at Large